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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/477,704	06/07/95	HINDERKS	M RCH-22164-F-

QM61/0301  
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EXAMINER

KAMEN, N

ART UNIT

PAPER NUMBER

3747

DATE MAILED:

03/01/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**



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QM61/0130

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DATE MAILED: 01/30/01

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08/477,704    06/07/95    HINDERKS    M    RCH-22164-F-

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QM02/1226

EXAMINER

KAMEN, N

ART UNIT

PAPER NUMBER

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DATE MAILED: 12/26/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

# Office Action Summary

Application No.

8/477704

Applicant(s)

Hinderks

Examiner

Kremer

Group Art Unit

3747

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 218-347 is/are pending in the application.
- Of the above claim(s) 221-223, 225, 226, 228, 230, 232, 233, 235, 236, 238, 239, 241, 242, 244, 245, 247, 248 is/are withdrawn from consideration.
- ☐ Claim(s) 250, 251, 253, 254, 256, 257, 259, 260, 262, 263, 265, 266, 268, 269, 271, 272, 274, 275, 277-280, 283-286, 287, 290, 292, 293 is/are allowed.
- ☒ Claim(s) 218, 220, 224, 227, 29, 23, 134, 237, 240, 243, 246, 249, 252, 255, 268, 269, 270, 273, 276, 281 is/are rejected.
- ☒ Claim(s) 258 is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 218-220, 224, 287, and 344 are rejected under 35 U.S.C. 102(b) as being anticipated by Gould.
3. Claims 220 and 240 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith.
4. Claims 220, 243, 276, and 341 are rejected under 35 U.S.C. 102(b) as being anticipated by MacKirdy.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 220, 227, 229, 231, 287, 288, 318, and 347 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould.

Gould discloses a rotary engine with a rotatable piston at 41 with a projection at 21 and a cylinder. The piston comprises a plurality of portions secured by bolts 43 which are under tension. However, the features of an egr system, hollow bolts, and the mere inclusion of any pump are all elements common to engines and as such would have been obvious to one of ordinary skill in the art to provide them.

7. Claims 227, 246, and 252 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

To include an egr system and air filtering material in Smith for their desired functions would have been obvious to one of ordinary skill in the art.

8. Claims 220, 227, 249, 255, 261, 281, 282, 329, and 332 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Arney and Berger.

Brown shows an engine comprising bolts under tension for a cylinder assembly, toriodal combustion chambers, and an exhaust passage near 40. However, there is no egr system, hollow bolts, rotating/reciprocating piston, and partially surrounding volume with catalytic filamentary material.

Arney teaches the recited rotating/reciprocating piston mechanism at 45. Berger teaches filamentary catalytic material at 43 in an exhaust system. It would have been obvious to one of ordinary skill in the art to modify Brown to use a reciprocating/rotating piston mechanism as

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taught by Arney and a filamentary catalytic material in an exhaust system which would then form a partially surrounding volume as taught by Berger. The use of an egr system to reduce pollution is well known and to use hollow bolts to reduce weight would be an obvious expedient.

9. Claims 220, 227, 229, 234, 237, 329, and 332 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arney in view of Waeber.

It would have been obvious to one of ordinary skill in the art to gang a plurality of the engines shown by Arney to a single output shaft as taught by Waeber for increased power. In regard to claim 237, the "special means" is so broad as to read on a shared exhaust system.

The use of egr systems to reduce pollution is notoriously well known.

10. Claims 264, 267, 335 and 338 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould as applied to claims 220, 224 and 227 above, and further in view of Nallinger.

To include an insulative housing around Gould as taught by Nallinger at 10 to reduce noise would have been obvious to one of ordinary skill in the art.

11. Claims 270, 273, 291, 294, 297, and 300 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould as applied to claims 220 and 227 above, and further in view of Goldsborough. To make the piston and cylinder of Gould from ceramic to increase thermal efficiency would have been obvious to one of ordinary skill in the art as taught by Goldsborough.

The electric circuit reads on a common spark plug.

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*Allowable Subject Matter*


12. Claim 258 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 303, 306, 309, 312, and 315 are withdrawn from consideration because the claims from which they depend have not been elected.

*Conclusion*

14. The examiner does not understand what broad inventive concept the applicant is trying to claim. The claims set forth well known elements (i.e. egr systems, rotating/reciprocating pistons, ceramic parts) in various combinations and permutations. What, precisely, is applicant trying to improve upon over the prior art?

Inquiries concerning the examiner's action should be directed to Noah Kamen at (703) 308-1945. The supervisory examiner, Henry Yuen, can be called at 308-1946. Fax is 308-7766. Questions of a general nature concerning the application should be directed to the group receptionist at 308-0861.

  
NOAH KAMEN  
PRIMARY EXAMINER  
ART UNIT 3747

December 19, 2000